**A2 Economics Unit 3 – Theory of Production**

**Scenario:**

A vintage car manufacturing business wishes to increase its output in the short run. We assume that at least one factor of production remains constant, for example the size of the factory. To increase their output the firm has decided to hire extra workers.

1. Complete the table using the following formulas:
   1. Average Product = Total Product / No of Workers
   2. Marginal Product = Difference between the total product values for each additional worker.

|  |  |  |  |
| --- | --- | --- | --- |
| **No. of Workers** | **Total Product** | **Average Product** | **Marginal Product** |
| 1 | 3 |  |  |
| 2 | 7 |  |  |
| 3 | 16 |  |  |
| 4 | 28 |  |  |
| 5 | 45 |  |  |
| 6 | 60 |  |  |
| 7 | 63 |  |  |

1. Now you have calculated the table above, plot on a graph the figures from the No. of Workers Column (X Axis) and the Marginal Product (Y Axis)
2. Comment on anything of significance that you notice.



1. At what No. of Workers do you think it is optimal for the firm to stop employing additional workers?